

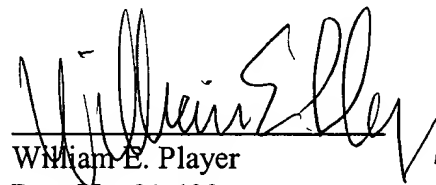
Since neither Martinowitz nor Nur adds anything to cure the fatal deficiency in Reis, i.e., failure to disclose a limitation on the present claims, neither rejection under §103(a) can be maintained. *In re Thrift*, 63 USPQ2d 2002, 2008 (Fed. Cir. 2002). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

Favorable action is requested.

Respectfully submitted,

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By


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Attorney Docket No. P66403US0

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: BAR et al.

Serial No.: 09/744,973

Group: 1654

Filing Date: February 15, 2001

Examiner: Anish Gupta

For: FIBRINOGEN MULTIMERS

DECLARATION UNDER 37 CFR 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

The undersigned, Dr. Israel Nur, does hereby declare and state that:

1. He is one of the inventors named in the subject application.
2. His *curriculum vitae* is attached, hereto.
3. He is familiar with the final rejections under 35 USC 102(b) and 103(a) in the Office Action mailed November 19, 2003, which rejections rely on a prior art decanting process ("double cold precipitation"), the fibrin product obtained thereby, as disclosed, *i.a.*, in *Brazilian J Med Biol Res*, 26, 473-476, 1993 ("Reis"), and the related allegation "Applicants have not provided any evidence that the [prior art] decanting process yielded the removal [o]f multimers" (Office Action, sentence bridging pages 3 and 4).
4. In order to show that, contrary to the aforesaid allegation, Applicants *have* provided evidence that the prior art decanting process removes multimers, he refers to and discusses experiments reported in the subject application, which experiments compare products obtained according to the present invention with the fibrinogen content in products obtained according to the prior art, as follows:

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Experimental samples were compared using electrophoreses on an agarose SDS gel. The samples were applied on the top of each lane in the electrophoretic field. Smaller protein molecules in the samples move faster than the larger protein molecules, thereby, separating the constituent proteins of each sample in accordance with their size/molecular weight. Details of the electrophoretic conditions are given in the paragraph bridging pages 4 and 5 of the subject application. After electrophoreses the proteins were blotted on an nitrocellulose membrane as described in the paragraph bridging pages 5 and 6 of the subject application. Results are shown in application figure 2; due to the immunodetection of fibrinogen, only fibrinogen monomers and fibrinogen multimers are visible in the figure.

Lanes 4 to 11 (in figure 2) show results using different samples of the product of the present invention. Lane 2 shows a product commercially available as BERIPLAST from Aventis Pharma. BERIPLAST is prepared using "double cold precipitation" also described in Reis. Using "double cold precipitation," frozen plasma is thawed at 4 °C and centrifuged. The supernatant is removed and the cryoprecipitate is redissolved at 37 °C. The cryoprecipitate is then pooled, frozen, thawed, pooled again, and centrifuged. The resulting supernatant, which contains any fibrinogen multimers, is decanted and discarded.

5. As evidenced by the experiments (and results) reported in the subject application, as explained above, a product prepared by "double cold precipitation" is free of fibrinogen multimers having at least 6 fibrinogen units; whereas, the product prepared in accordance with the instant invention contains fibrinogen multimers having at least 6 fibrinogen multimers.


The undersigned declares that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that

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the statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Further, declarant sayeth naught.

28 Apr 2004
Date


Dr. Israel Nur

US 09744,973 Rule 132(Nur)Rev.doc

Israel Nur

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Married, 3 children

Date of Birth: 21 February, 1952

EDUCATION:

- 1979 MSc. The Hebrew University of Jerusalem, Israel (Cum Laude).
- 1983 Ph.D. The Hebrew University of Jerusalem, Israel.
- 1985 Postdoctoral Student, Department of Membrane and Ultrastructure Research, Hadassah Medical School, The Hebrew University of Jerusalem, Israel.

PROFESSIONAL EXPERIENCE:

- 1977 - 79 Teaching Assistant, Department of Microbiology, Faculty of Agriculture, Rehovot, The Hebrew University, Jerusalem.
- 1979 - 82 Assistant, Department of Membrane, Hadassah Medical School, The Hebrew University, Jerusalem.
- 1982 - 84 Scientist, Bio Technology General (Israel) Ltd. Kiryat Weizman, Rehovot, Israel.
- 1985 Visiting Fellow, Section on Genomic Structures and Function, Laboratory of Biochemical Pharmacology, National Institute of Arthritis, Diabetes and Digestive, Kidney Diseases, National Institutes of Health, Bethesda, Maryland, U.S.A.
- 1988 Project Head, Research and Development Dept., Orgenics Ltd., Yavne, Israel.
- 1990 Head of Research and Development, Orgenics, Yavne, Israel.
- 1992 Head of Research and Development unit of OctaPharma Medical Research Institute Ltd. Kiryat Weismann Scientific Park, Building 14, Rehovot, Israel. Subsidiary of Octapharma AG, Ziegelbrücke, Switzerland.
- 1995 Head of Research and Development of Omrix biopharmaceuticals LTD Israel and vice president of Omrix Biopharmaceutical SA, Brussels, Belgium.

INDUSTRIAL - CAREER AND ACCOMPLISHMENTS

Executive, scientific and operational experience in health-care, biotechnology and biological research industry.

Achievements in developing successful products from a basic idea to the market-place as well as attaining patent support, registration and strategic partnership

Proven capabilities in identifying and leading new projects by effective management of the resources required to obtain significant goals.

Experience complying with GMP and developing SOPs for production and Q.C.
Experience in managing a R&D department and negotiations with foreign companies.
Experience in managing an independent unit, part of multinational cooperation.

Ten years experience in research and developing of plasma products and liposome formulation for large proteins, including large scale purification of plasma proteins and virus inactivation validation.

HONORS AND AWARDS:

1980 - Research Assistantship, The Hebrew University, Jerusalem.

1985 - Rothschild Postdoctoral AWARDS.

1986 - NIH fellowship.

SOCIETIES:

Israel Microbiology Society

International Organization for Mycoplasmaology

Israel Biochemical Society

International Society on Thrombosis and Homeostasis

LIST OF PUBLICATIONS:

SEMINARS AND SYMPOSIA, ORAL PRESENTATION.

Annual Meeting of the Israel Society for Microbiology, Jerusalem, 1981

Symposium on Nitrogen Fixation, Rehovot, 1982

2nd International Symposium on N₂ - Fixation with Non-Legumes, Banff, Canada, 1982.

5th Meeting of the International Organization for Mycoplasmaology, Jerusalem, 1984

86th Annual Meeting of the American Society for Microbiology, Washington, D.C., March 1986

4th European Edition of the Oak Ridge Conference on Advanced Technology for the Clinical Laboratory and Biotechnology

Papillomavirus Workshop, Heidelberg, Germany, 1990

International Biochemistry Meeting, Jerusalem, 1991.

Papillomavirus Workshop, Seattle, Washington, 1991.

Gene Therapy Symposia Cold Spring Harbor, New York, USA, 1992.

XIVth congress of International Society on Thrombosis and Homeostasis New York, USA 1993.

XVIth congress of International Society on Thrombosis and Homeostasis Florence, Italy 1997

XVII th congress of International Society on Thrombosis and Homeostasis
Washington DC, USA: 1999.

BIBLIOGRAPHY (29 publications until 1990).

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25 paper until the year 1985.

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2. Nur, I., Bove, J. M., Saillard, I., Rottem, S., Whitcomb, R.M., and Razin, S.: Gene probes in detection of spiroplasmas and mycoplasma-like organisms in plants and insects. *FEMS Microbiol. Lett.* 35, 157-162 (1986).
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5. Razin, S., Hyman, H.C., Nur, I., and Yagev, D.: DNA probes for detection and identification of mycoplasma (Mollicutes). In the *Isr. J. Med. Sci.* (1987), Proceeding of the 6th IOM congress 1986.
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8. Nur, I., Pascale, E., and Fuvano, A.V.: Dimethylation and specific remethylation of promoter like region of a family of mammalian transposable elements: Proc. of the Forum on Eukaryotic DNA methylation, November 22-25, 1987. Rome, Italy. In: *Cell Biophysio*, Clifton, New Jersey: Humana Press, 1989. vol 15, 61-66.
9. Nur, I., Rainhartz, A., Hyman, H.C., Razin, S., and Herzberg, M.: Chemiprobe™, a non radioactive system for labeling nucleic acid: principles and applications (1989), *Annales de Biologie Clinique.* 47: 601-606.

10. Nur, I., Elkaim, R., Hertzberg, M.: HybriComb - a novel diagnostic tool for DNA probing. (1990) *Annales de Biologie clinique* 48: 557-559
11. Tierrt Paper, M., Frieman and Nur, I.: Use of sulfonated primers to detect and type papillomavirus in cell culture and cervical biopsies. *Gene* 103: 155-161.(1992).
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16. Nur, L. Routledge, G. Lushkov, P. Paulmier, and Virat M. Absorption and elimination of α -thrombin and Tranexamic acid after fibrin sealant application on resected livers in rabbits *Blood coagulation & fibrinolysis* 1998:533-7.
17. Otsuka, M. Baro, M. Delriviere, L. Talpe, S. Nur, I. And Gianello P. In vivo liver-directed gene transfer in rats and pigs with large anionic multilamelellar liposomes: routes of administration and effect of surgical manipulations on transfection efficiency. *J. drug targeting* 2000. 267-279.
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20. Bar L, Osnat M, Naboichenko E and Nur I. The binding of fibrin sealant to collagen is influenced by the method of purification and the cross-linked fibrinogen-fibronectin (heteronectin) content of the "fibrinogen" component. 2004 Submmited.